

Fluazinam

Fluazinam is a pyridinamine fungicide that can control blight caused by *Phytophthora infestans* in potatoes, beans and other crops (e.g., bushberries, edible-podded beans and cruciferous vegetables such as cabbage and broccoli). Fluazinam has strong persistence of effect against blight and can suppress secondary infection in the field through inhibition of sporulation. Fluazinam has been widely used in the U.S. since the 1990s. Fluazinam is not registered for use in California. Exposure in California would occur mainly through crops imported from other states.

Fluazinam passed the animal data screen, underwent a preliminary toxicological evaluation, and is being brought to the Carcinogen Identification Committee for consultation. This is a compilation of the relevant studies identified during the preliminary toxicological evaluation.

Epidemiological data

No cancer epidemiology studies were identified.

Animal carcinogenicity data

- 104-week feeding studies
 - Male and female Sprague-Dawley rats: U.S. EPA (2000)
 - *Increased in thyroid gland follicular cell adenomas (by trend), carcinomas (by trend), and adenomas and carcinomas combined (by pairwise comparison and trend) in males*
 - *No treatment-related tumor findings in females*
 - Male and female CD-1 mice: U.S. EPA (2000)
 - *Increases in hepatocellular adenomas, carcinomas, and combined adenomas and carcinomas (by pairwise comparison and trend) in males*
 - *Increases in hepatocellular adenomas and carcinomas combined (by pairwise comparison) in females*

Other relevant data

- Genotoxicity
 - Review: US EPA (2003, pp. 32-36)
 - *Salmonella* reverse mutation assays, multiple strains (negative)
 - *B. subtilis* growth/killing inhibition assays, strains H17(rec+) and M45(rec-) (negative)

- Chromosomal aberrations in Chinese hamster lung fibroblast cells *in vitro* (negative)
- ICR (Crj:CD-1) mouse bone marrow micronucleus assay *in vivo* (negative)

Reviews

- U.S. EPA (2000, 2003, and 2007)

References¹

U.S. Environmental Protection Agency (U.S. EPA, 2000). Memorandum: Fluazinam qualitative risk assessment based on Sprague-Dawley rat and CD-1 mouse dietary studies, Office of Prevention, Pesticides and Toxic Substances, Washington D.C. EPA/R013135.

U.S. Environmental Protection Agency (U.S. EPA, 2003). Memorandum: Fluazinam – 2nd Report of the Hazard Identification Assessment Review Committee, Office of Prevention, Pesticides and Toxic Substances, Washington D.C. EPA/TXR 0051576.

U.S. Environmental Protection Agency (U.S. EPA, 2007). Memorandum: Fluazinam: Human Health Risk Assessment for Proposed Use on Edible-Podded Beans, Shelled Succulent and Dried Beans, *Brassica* Leafy Vegetales, Brushberries, and Ginseng. Health Effects Division, Office of Prevention, Pesticides and Toxic Substances, Washington D.C. EPA/R152733

¹ Excerpts or the complete publication have been provided to members of the Carcinogen Identification Committee, in the order in which they are discussed in this document.